

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference PAT01141PCT	FOR FURTHER ACTION		See item 4 below
International application No. PCT/EP2004/004319	International filing date (<i>day/month/year</i>) 23 April 2004 (23.04.2004)	Priority date (<i>day/month/year</i>) 26 April 2003 (26.04.2003)	
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237			
Applicant BASF COATINGS AG			

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).

2. This REPORT consists of a total of 10 sheets, including this cover sheet.

In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.

3. This report contains indications relating to the following items:

- | | | |
|-------------------------------------|--------------|---|
| <input checked="" type="checkbox"/> | Box No. I | Basis of the report |
| <input checked="" type="checkbox"/> | Box No. II | Priority |
| <input type="checkbox"/> | Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| <input type="checkbox"/> | Box No. IV | Lack of unity of invention |
| <input checked="" type="checkbox"/> | Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/> | Box No. VI | Certain documents cited |
| <input type="checkbox"/> | Box No. VII | Certain defects in the international application |
| <input type="checkbox"/> | Box No. VIII | Certain observations on the international application |

4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis.2).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No. +41 22 740 14 35	Date of issuance of this report 02 March 2006 (02.03.2006)
	Authorized officer Ellen Moyse Telephone No. +41 22 338 89 75

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

PCT**Translation**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Applicant's or agent's file reference PAT01141PCT		Date of mailing (day/month/year)	
		FOR FURTHER ACTION See paragraph 2 below	
International application No. PCT/EP2004/004319	International filing date (day/month/year) 23.04.2004	Priority date (day/month/year) 26.04.2003	
International Patent Classification (IPC) or both national classification and IPC			
Applicant BASF COATINGS AG			

1. This opinion contains indications relating to the following items:

- | | | |
|-------------------------------------|--------------|--|
| <input checked="" type="checkbox"/> | Box No. I | Basis of the opinion |
| <input checked="" type="checkbox"/> | Box No. II | Priority |
| <input type="checkbox"/> | Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| <input type="checkbox"/> | Box No. IV | Lack of unity of invention |
| <input checked="" type="checkbox"/> | Box No. V | Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/> | Box No. VI | Certain documents cited |
| <input type="checkbox"/> | Box No. VII | Certain defects in the international application |
| <input type="checkbox"/> | Box No. VIII | Certain observations on the international application |

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/EP	Authorized officer
Facsimile No.	Telephone No.

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/EP2004/004319

Box No. 1

Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐

This opinion has been established on the basis of a translation from the original language into the following language

_____, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

- a. type of material

☐

a sequence listing

☐

table(s) related to the sequence listing

- b. format of material

☐

in written format

☐

in computer readable form

- c. time of filing/furnishing

☐

contained in the international application as filed.

☐

filed together with the international application in computer readable form.

☐

furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2004/004319

Box No. II

Priority

1. ☒ The following document has not yet been furnished:

☒ copy of the earlier application whose priority has been claimed (Rule 43bis.1 and 66.7(a)).

☐ translation of the earlier application whose priority has been claimed (Rule 43bis.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.

2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43bis.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.

3. Additional observations, if necessary:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/EP2004/004319

Box No. V	Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1. Statement			
Novelty (N)	Claims	<u>1-14</u>	YES
	Claims	_____	NO
Inventive step (IS)	Claims	_____	YES
	Claims	<u>1-14</u>	NO
Industrial applicability (IA)	Claims	<u>1-14</u>	YES
	Claims	_____	NO
2. Citations and explanations:			
<p>1 The present opinion makes reference to the following documents:</p> <p>D1: PATENT ABSTRACTS OF JAPAN Vol. 1995, No. 04, 31 May 1995 (1995-05-31) -&; JP 7 018494 A (PARKER ENG KK), 20 January 1995 (1995-01-20)</p> <p>D2: US 6 372 107 B1 (LACHENMAIER KLAUS <i>ET AL</i>) 16 April 2002 (2002-04-16)</p>			
<p>2 INDEPENDENT CLAIM 1</p>			
<p>2.1 The present application does not meet the requirements of PCT Article 33(1), because the subject matter of claim 1 does not involve an inventive step within the meaning of PCT Article 33(3).</p>			
<p>2.2.1 Document D1 is regarded as the closest prior art to the subject matter of claim 1. It discloses (the references in parentheses relate to said document) a method for the electrodeposition painting of electrically conductive, three-dimensionally shaped substrates (AA) in a throughflow system, which comprises</p>			

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2004/004319

Box No. V

Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

- an electrodeposition paint basin (12),
containing the electrodeposition paint,
- an overflow basin (13b), containing the
electrodeposition paint,
- at least one circulating pump (16b) for
sucking out the electrodeposition paint at
the bottom of the overflow basin (13b),
- at least one circulating pump (6a) for
sucking out the electrodeposition paint at
the bottom of the opposite end (3a) of the
electrodeposition paint basin (12) from the
overflow basin (13b),
- at least two flow pipes for returning the
electrodeposition paint which has been sucked
out by the circulating pumps (16b) and (6a)
to the electrodeposition paint basin (12) at
the base of the latter, in such a manner that
a directed basin flow (DD) is produced and
maintained in the longitudinal direction in
the electrodeposition paint basin (12),
- the basin flow (DD) in the region of the
basin base being directed oppositely to the
basin flow (DD) in the region of the surface
of the bath, and
- at least one conveyor device (111)
provided with devices for transporting the
substrates (AA) to the electrodeposition
paint basin (12), wherein the substrates (2)

II. with the aid of the conveyor device or
conveyor devices (111)

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2004/004319

Box No. V

Reasoned statement under Rule 43b(5.1(a)(i)) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

II.1 are supplied to the immersion area of the electrodeposition paint bath (12) via the overflow basin (13b), and

II.5 are subjected to further machining after they have been removed,

the electrodeposition paint which is sucked out by means of the circulating pumps (16b) and (6a) being returned via the flow pipes to the base of the electrodeposition paint basin (12) in such a manner, and a directed basin flow (DD) being produced and maintained so as to flow in the direction of transport in the region of the basin base and oppositely to the direction of transport of the substrates (AA) in the region of the surface of the basin (cf. paragraphs [0009] - [0021] and figures 3 and 5).

- 2.1.2 The subject matter of claim 1 therefore differs from what is known from D1 by virtue of the fact that the method comprises rotating and immersing the substrates in the electrodeposition paint bath at one end thereof in the immersion area, transporting the substrates through the electrodeposition paint bath in the longitudinal direction and rotating and removing the substrates from the electrodeposition paint bath at its other end, as seen in the direction of transport of the substrates, in the removal area, wherein the substrates

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2004/004319

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Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

1. are disposed in the form of a cathode or anode and

II.2 as they are being immersed in the electrodeposition paint basin are rotated, about a horizontal axis of rotation that is perpendicular to the direction of transport, at an angle of $> 100^\circ$ in relation to the original position thereof,

II.3 are passed through the electrodeposition paint basin and coated in their new orientation,

II.4 during removal from the electrodeposition paint basin in the removal area are rotated back into the original position about a horizontal axis of rotation that is perpendicular to the direction of transport.

2.1.3 The problem addressed by the present invention can therefore be considered that of ensuring that, by rotating the substrates, less sediment or even no sediment whatsoever is formed on their outer sides.

2.1.4 The solution proposed in claim 1 of the present application cannot be considered inventive for the following reasons (PCT Article 33(3)): the steps of the method mentioned above in point

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2004/004319

Box No. V

Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

2.1.2 are known from D2 (cf. column 8, line 32 to column 89, line 35 and column 19, line 41 to column 20, line 38 and figures 1-3, 23), with the same effects also being achieved (column 2, lines 36-58).

2.1.5 Therefore, a person skilled in the art, to solve the problem of interest, would combine all the features disclosed in D1 and D2 with one another, without thereby being inventive. Consequently, the solution proposed in the independent claim 1 cannot be considered inventive (PCT Article 33(3)).

3 INDEPENDENT CLAIM 13

3.1 The present application does not meet the requirements of PCT Article 33(1), because the subject matter of claim 13 does not involve an inventive step within the meaning of PCT Article 33(3). In accordance with the arguments given above, the throughflow system for carrying out the method according to claim 13 also does not appear to involve an inventive step.

4 DEPENDENT CLAIMS 2-7, 10-12, 14

Dependent claims 2-7, 10-12, 14 do not contain any features which, in combination with the features of any claim to which they refer back, meet the PCT requirements for inventive step (PCT Art. 33(3)), since all the features of these claims appear to be known in combination with a known effect and/or

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2004/004319

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appear to involve minor variants within the scope of
normal practice of a person skilled in the art.